

Assignment 02 (05 Marks)

Underline the correct answer

1. What is the Default accessibility of the Class?
 - a. Private
 - b. Public
 - c. Internal
 - d. Protected

2. Which of the following statements are true about the .Net CLR?
 - a. It provides a language-natural development & execution environment.
 - b. It handles insufficient Memory
 - c. CLR is only a garbage collector.
 - d. It handles the memory allocation, Garbage Collection, and provides services to run "managed" applications.

3. What is the Default accessibility of a Method in a Class?
 - a. Public
 - b. Private
 - c. Protected
 - d. Internal

4. What is the Default accessibility of a Data Members in a Class?
 - a. Public
 - b. Private
 - c. Protected
 - d. Internal

One sentence answer is enough.

1. What is an Object?
2. What do you mean by a Class?
3. What are the two characteristics of an Object and how you relate it to the programming?

You have to do the following questions in Visual Studio. Copy paste the code to a Word Document. Take Print Screen and place the print screens in the word document. When you create the visual studio project use your index number for the project name. Rename the word document using your index number and upload it to LMS. Above MCQ answers you can place in the same word document.

Create a console Program for following requirements

1. Create a Class called Car with two variables speed and gear (give some initial values). Create two methods to increase and decrease current speed. Create two methods to increase and decrease current gear. Create an object in the main class and access those 4 methods.

2. Develop a console program to create following classes.

- Father Class

Variables: House – public, CarModel – protected, Surname – internal, Account_balance – private. (Assign some values for each variable)

Methods: public void displayData() – To display the values of each variable.

- Child Class: Inherit from the Father Class

Variables: Degree – public, Name - public (Assign some values for each variable)

Methods: public void displayData () – To display values which inherited from the Father Class along with the value of the Degree and Name variables.

- In the main class create objects of above two classes and understand inheritance and what are the variables you can access from above two classes.

3. Develop a console program to create overload method to find the area and volume of a Rectangle. Create the method called “Calculate” in a class called “Cube”. Values for length, width and height must take from the user.

- Area = length * width
- Volume= length * width * height

Create a Windows Form Applications for following requirements

1. Develop a windows form application for shopping mole. The software is able to input Customer Code, Item Price and Quantity bought. Output the Bill Amount, Discount Amount and Net Bill Amount.

(Hint: Text Boxes, Labels, Buttons and If Else Conditions)

| <u>Bill Amount</u> | <u>Discount Rate</u> |
|--------------------|----------------------|
| Greater than 10000 | 15% |
| Greater than 5000 | 10% |
| Greater than 2000 | 5% |

Hint:

Bill Amount= Item Price * Quantity Bought

Discount Amount= Bill Amount * Discount rate

Net Bill Amount = Bill Amount - Discount Amount

2. Develop a windows application to input the Account Type and the Account Balance. Calculate the interest according to the table given below. Display the total amount in the account by adding the interest to the balance.
(Hint: Combo Box or Radio Buttons, Text Box, Labels, Buttons, If-Else)

| <u>Account Type</u> | <u>Balance</u> | <u>Interest</u> |
|---------------------|------------------|-----------------|
| Vanitha | Less than 25,000 | 8% |
| Vanitha | More than 25,000 | 10% |
| Upahara | Less than 50,000 | 12% |
| Upahara | More than 50,000 | 13% |
| Hapan | Less than 75,000 | 14% |
| Hapan | More than 75,000 | 15% |

3. Develop a windows form application to calculate the Labor's Salary based on the following table. Software is able to input Employee Code, Basic Salary and OT Hours and output the Total Salary (OT Amount and Commission must calculate based on the following table). After 10 second display the Employee Code which entered by the User, on the top of the Form using a Label.
(Hint: Text Box, Buttons, Labels, If-Else, Timer)

Total Salary = Basic Salary + Commission + (OT Hours * OT Rate)

| OT Hours | OT Rate | Commission |
|--------------------|-----------------|-------------------|
| Less than 10 hours | Rs 200 per Hour | Rs 300 |
| More than 10 hours | Rs 250 per Hour | Rs 400 |
| More than 25 hours | Rs 300 per Hour | Rs 500 |
| More than 50 hours | Rs 350 per Hour | Rs 800 |